



State of Ohio Environmental Protection Agency

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Columbus, Ohio 43216-3669
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CONFIDENTIAL

George V. Voinovich
Governor

February 9, 1995

Ms. Jeanne Griffin
Site Assessment Manager
Site Assessment Section (HMJ-5J)
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

RECEIVED
FEB 18 1995
SITE ASSESSMENT SECTION

Re: Navistar International Body Plant EPA ID# OHD081290660

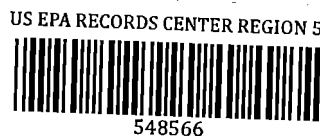
Dear Ms. Griffin:

Enclosed is the workplan/health and safety plan, and preliminary PREscore-HRS of the Navistar International Body Plant Integrated Assessment (IA). The preliminary PreScore-HRS for this site scored 48.65. Upon approval of the IA workplan please fax to the attention of Jason Thomas at (513) 285-6249.

Please direct any questions or comments to me at (614) 644-3538 or Jason Thomas at (513) 285-6066.

Sincerely,

Victoria Van Horn
Site Investigator



Enclosures

pc: Jeff Wander, Supervisor, SIFU-DERR
Jason Thomas, Site Coordinator, SWDO-DERR



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EPA 1613 (rev. 5/94)

OHIO ENVIRONMENTAL PROTECTION AGENCY (Ohio EPA)

DIVISION OF EMERGENCY & REMEDIAL RESPONSE (DERR)

INTEGRATED ASSESSMENT (IA) WORKPLAN APPROVAL FORM

NAVISTAR INTERNATIONAL BODY PLANT

Prepared By: J. Jason Thomas VLV 2-7-95
J. Jason Thomas, Site Co-ordinator
Ohio EPA, DERR-SWDO

Reviewed By: Victoria Van Horn
Victoria Van Horn, Site Investigator
Ohio EPA, DERR-SIFU

Reviewed By: Jeff Wander
Jeff Wander, Field Operation Manager
Ohio EPA, DERR-SIFU

Approved By: Jeanne Griffin 2/28/95
Jeanne Griffin, Site Assessment Manager
U.S. EPA, Region 5

**UPON REVIEW AND APPROVAL OF THIS IA WORKPLAN, PLEASE SIGN AND
FAX THIS SHEET TO (513) 285-6249, ATTENTION: JASON THOMAS**

(15)
- Sampling approved
* Take 3 groundwater
samples at least.
- Good plan.

SI Start
EA Start
- 6726 -
WJW
C.

OHIO ENVIRONMENTAL PROTECTION AGENCY (Ohio EPA)

DIVISION OF EMERGENCY & REMEDIAL RESPONSE (DERR)

INTEGRATED ASSESSMENT (IA) WORKPLAN APPROVAL FORM

STATEMENT OF PURPOSE: The purpose of this IA is to collect data necessary to prepare an HRS scoring package to sufficiently evaluate if the Navistar International Body Plant site belongs on the National Priority List (NPL). Data will be used to document observed releases, observed contamination, and target exposures to contamination.

I. GENERAL INFORMATION:

Date of Work Plan: 1/12/95

Expected Date of IA: Week of March 13, 1995

Site Name: Navistar International Body Plant County: Clark

CERCLIS #: OHD 081290660 Ohio ID: 512-1462

Site Location: 2069 Lagonda Avenue Springfield, Ohio

Latitude: North 39° 56' 16.0" Longitude: West 83° 46' 28"

Ohio EPA Investigator: Jason Thomas

U. S. G. S. Map Info (Quadrant): Springfield Quadrangle, Ohio, Clark County

Site Reconnaissance: October 14, 1994

Ohio Priority: Medium

Access Permitted: OEPA/SWDO- Jason Thomas obtained access from environmental co-ordinator, Richard Cutrell.

Utility Clearance: Underground Utilities will be contacted 48 hours prior to visit.

SAMPLE SUMMARY:

- ▶ Total number of soil sample locations: 6 samples, 1 background, & 1 duplicate
- ▶ Total number of sediment sample locations: 3 samples, 1 background, 1 duplicate.
- ▶ Total number of monitoring well sample locations: 2 samples, 1 background, & 1 duplicate.
- ▶ Total number of surface water sample locations: 3 samples, 1 background, & 1 duplicate.

DIRECTIONS TO SITE FROM COLUMBUS: I-70 West to State Route 68 North to Urbana. Get off at the Springfield exit, Rte. 4. Follow Route 4 east until you run into Lagonda Ave. Turn left on to Lagonda Ave. Follow the road until it runs into the facility (Figure 1).

II. SITE DESCRIPTION:

The Navistar Body Plant is located at 2069 Lagonda Ave. in Springfield, Ohio. Approximately 40 miles west of Columbus and 25 miles northeast of Dayton. The plant is on the northeast side of Springfield. Buck Creek is a major drainage that flows east-west through Springfield and the facility (Figure 5).

The abandoned landfill is located in the northeast corner of the Navistar plant. The site is bounded on the north by a steep hill with residential housing at the top and on the south by a railroad spur that runs parallel to Buck Creek. The surface area of the landfill is approximately 700 x 150 feet (105,000 square feet). There is some indication that the landfill is level and slopes very gently to the west. The exact extent area of the fill is not certain. This area may have been used from the early 1900's to the late 1960's to dispose of fly-ash, bottom ash, slag and clinkers generated from the combustion of coal for steam generation, heating and plant processes. Sludges from the plant operations were randomly interspersed among the ash and clinkers. Landfill operations were discontinued over 10 years ago.

The facility removed four underground storage tanks that were in use since the 1930's. The contents of each tanks ranged from #2 fuel oil, enamel paint, and regular gasoline. Three of the tanks were located on the edge of Buck Creek and the fourth tank was at the very south edge of the facility. When the tanks were removed in 1989, they were found to be in poor to fair condition and showed evidence of

released product. Soil and groundwater contamination was detected in the cavities of the pulled tanks.

III. SITE HISTORY:

Navistar International is a manufacturer of large trucks. The site on Lagonda Ave. is used to manufacture truck bodies that are transported to another location for assembly. The plant has been operating at this location since the early 1800's when it was used for the manufacture of agricultural machinery products of one kind or another. It started building trucks in 1920, and since 1925, its operations have been devoted to motor truck production.

IV. SITE GEOLOGY & HYDROGEOLOGY:

Geology

The site is located in an area where the glacial geology is characterized by valley-train sediments, which are generally very permeable outwash deposits of sand and gravel laid down in valleys by flooding meltwater from glaciers. The valley-train deposits are known to be thin in the valleys of Buck Creek, the stream adjacent to the site. The borings logs for the site do show an apparent absence of significant permeable sand and gravel sediments.

At the landfill site, thinly bedded and fractured limestone bedrock can be observed along the banks and valley walls of Buck Creek. Geophysical data indicates that depth to bedrock below the landfill surface ranges from 30 to 60 feet.

Soils

The Springfield area lies within the Till Plains section of the Central Lowland physiographic province. The geology in the Springfield area consists chiefly of unconsolidated glacial outwash sediments, either valley train or outwash plain deposits, overlying bedrock. These well-sorted and stratified outwash deposits from the primary water-bearing zones in the area. The outwash sediments consists of regionally extensive, thick and permeable deposits of sand and gravel.

Surface water drainage from the hillside located to the north does not flow directly onto the fill area but is intercepted by the peripheral drainage swales that mark the northern boundary of the site at the fence line. Although the surface of the landfill is relatively flat, rain water does not stand on the site, indicating the fill surface is highly permeable. Soil composition and characteristics of sand and gravel observed at the site support this supposition. Thus, infiltration is likely to be high.

Hydrogeology

Hydrogeologic studies in the vicinity of the Navistar site are lacking. Based on field observations and water level data provided by monitoring wells on the site, the near surface groundwater was found to be under water table conditions. The depth of the water table ranges from about 8 to 15 feet below the ground surface along Buck Creek, and it lies within the lower portions of the soil and fill material that overlies the bedrock.

The hydraulic gradient of the site appears to vary from 0.004 to 0.015 ft/ft and averages 0.011 ft/ft. The overall groundwater flow direction trends toward the northwest, which is consistent with the east-to-west flow direction of Buck Creek. There is no evidence of a hydraulic connection between creek and groundwater beneath the tank cavities and the landfill.

V. FIELD WORK SUMMARY:

Because there has been previous sampling at Navistar International Body Plant, a maximum of 14 samples will be collected. (Figure 5-Approximate Sample Location Map). This number does not include duplicates, backgrounds, trip blanks, or the MS/MSD samples. Global Positioning System (GPS) readings will be documented (if available) for all sample locations.

Past sampling activities were conducted by QSource Engineering, Inc., which sampled groundwater and soil. The samples were tested for VOCs, PCBs, and metals.

Soil:

Soil contamination will be investigated by collecting a maximum of six (6) soil samples. Surface corings (less than two feet deep) and deep corings (more than two feet deep) will be sampled for submission to Contract Laboratory Program (CLP). Chemical analyses performed on the samples will include volatile and semi-volatile organic compounds, pesticides/PCBs and Target Analytical List (TAL) metals. Additionally, one background sample will be collected. The background sampling locations will be determined in the field. Refer to Figure 4 - Approximate Soil Sample Locations. 6

Sediment:

Three (3) sediment samples will be collected from Buck Creek. One upstream, collected as background, and one near the landfill area of the site. Also, one leachate sample will be collected if leachate is present. Refer to Figure - 5 Approximate Sample Locations. 3

Surface Water

Three (3) surface water samples will be collected from Buck Creek. One upstream, collected as background, and one near the old UST tank cavities. Also, one leachate sample will be collected if leachate is present. Refer to figure-5 Approximate Sample Locations. 3

Ground Water Monitoring Wells:

Two (2) monitoring wells located on the property of Navistar International Body Plant will be sampled to confirm any on-site contamination. Refer to Figure 3 - Monitoring Well Sampling Locations.

Since groundwater flows in a possible southeast to northwest direction, the two wells that should be sampled should be monitoring well (MW) #4 and MW #3. MW #3 will have the greatest potential for contamination. Based on the fact that contamination from the rest of the wells will flow by this well. The background well to be sampled will be an off site well or MW #4.

*sample
at least
36w.*

Methods:

Personal protective procedures, sample collection, sample screening and field decontamination will be performed according to Ohio EPA-DERR's Field Standard Operating Procedures, 3rd Edition, 1991. The Quality Assurance Project Plan (QAPP) for Superfund Site Investigation Activities conducted by Ohio Environmental Protection Agency (December 22, 1992) will also be adhered to. The samples will be submitted to the Contract Laboratory Program (CLP) for analysis of volatile and semi-volatile organic compounds, pesticides/PCB's and Target Analyte List (TAL) metals.

VI. INVESTIGATION-DERIVED WASTE PLAN:

If, in the best professional judgement of the site investigators, investigation-derived wastes (IDW) can be rendered non-hazardous, the wastes will be double-bagged and deposited in an industrial dumpster on site or transported back to the Ohio EPA Field Facility in Columbus, Ohio for disposal as directed in the Investigation-Derived Waste Management Guidance Manual (USEPA/540/G-91/009, May 1991).

IDW will generally consist of disposable gear and wastewater that will be secured in a steel drum, on site if possible, until sample analysis results are received. If analytical data reveal significant contamination, as determined by the site investigator, these wastes will be disposed of properly by a contracted, licensed hauling and disposal facility.

The SouthWest District Office will be handling the IDW, which will mostly be waste water, for this site. Any water that can be labeled non-hazardous will be disposed at a nearby wastewater treatment plant.

FIELD SAMPLING SUMMARY

	VOC'S	BNA, Pest/PCB	METALS, CYANIDE
MATRIX	Soil	Soil	Soil
NUMBER OF CONTAINERS: (TYPE & VOLUME REQUIRED)	2(125 ml) wide mouth glass jar per field sample	1(250 ml) wide mouth glass jar per field sample	1 (250 ml) wide mouth glass jar per field sample
PRESERVATIVE	ICE	ICE	ICE
HOLDING TIME	14 DAYS	14 DAYS	14 DAYS/ Metals-6 months
TOTAL OF SAMPLES	6	6	6
DUPLICATES	1	1	1
BACKGROUND SAMPLES	1	1	1
TRIP BLANKS	None	None	None
MS/MSD	1 (From first sample collected)	1 (From first sample collected)	1 (From first sample collected)
TOTAL # OF FIELD SAMPLES:	8	8	8
Total number of sample containers:	16	8	8

FIELD SAMPLING SUMMARY

	VOC'S	BNA, Pest/PCB	METALS, CYANIDE
MATRIX	<i>Sediment</i>	<i>Sediment</i>	<i>Sediment</i>
NUMBER OF CONTAINERS: (TYPE & VOLUME REQUIRED)	<i>2(125 ml) wide mouth glass jar per field sample</i>	<i>1(250 ml) wide mouth glass jar per field sample</i>	<i>1 (250 ml) wide mouth glass jar per field sample</i>
PRESERVATIVE	<i>ICE</i>	<i>ICE</i>	<i>ICE</i>
HOLDING TIME	<i>14 DAYS</i>	<i>14 DAYS</i>	<i>14 DAYS/ Metals-6 months</i>
TOTAL OF SAMPLES	<i>3</i>	<i>3</i>	<i>3</i>
DUPLICATES	<i>1</i>	<i>1</i>	<i>1</i>
BACKGROUND SAMPLES	<i>1</i>	<i>1</i>	<i>1</i>
TRIP BLANKS	<i>None</i>	<i>None</i>	<i>None</i>
MS/MSD	<i>1 (From first sample collected)</i>	<i>1 (From first sample collected)</i>	<i>1 (From first sample collected)</i>
TOTAL # OF FIELD SAMPLES:	<i>5</i>	<i>5</i>	<i>5</i>
Total number of sample containers	<i>10</i>	<i>5</i>	<i>5</i>

FIELD SAMPLING SUMMARY

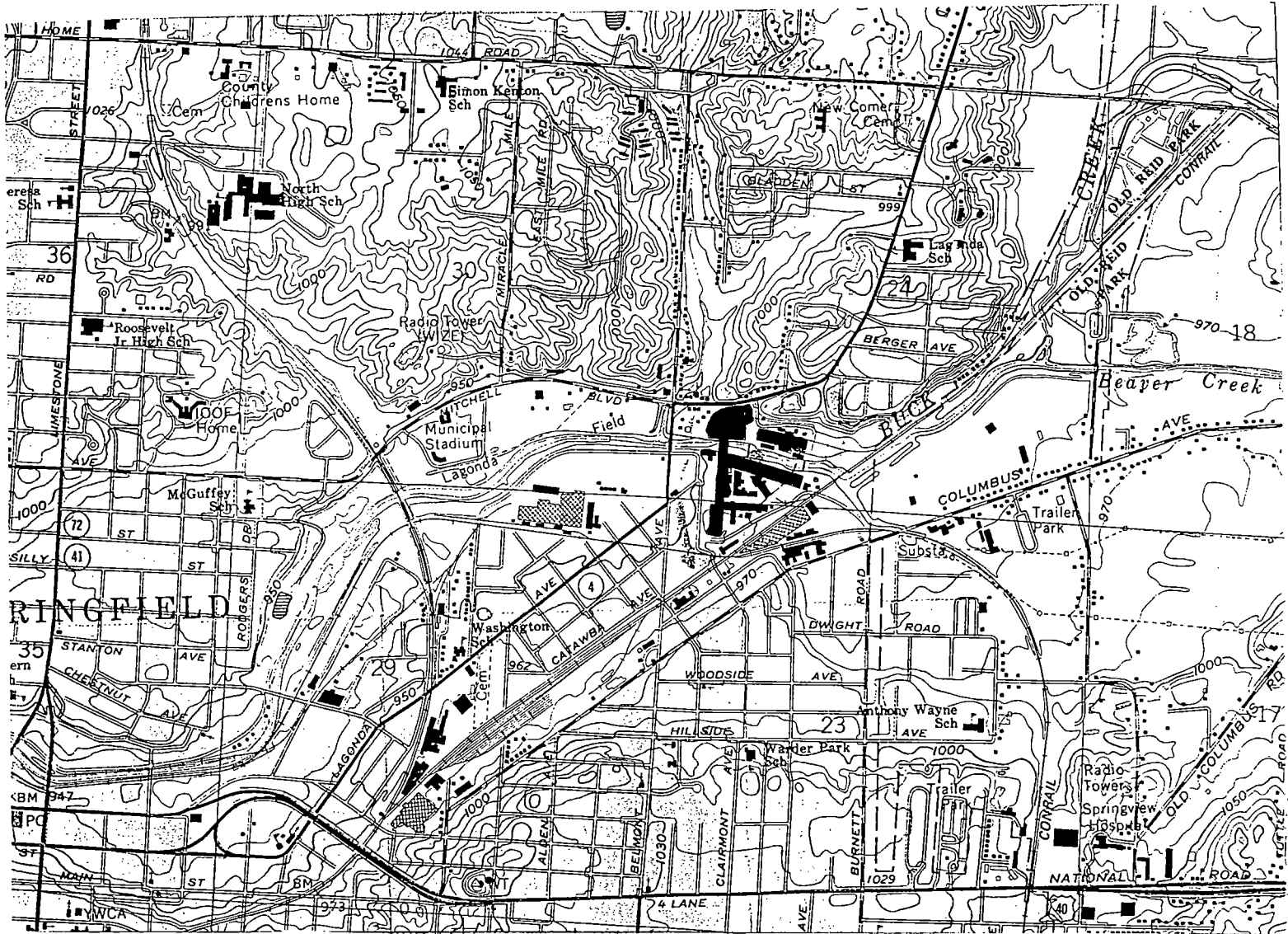
	VOC'S	BNA, Pest/PCB	METALS	CYANIDE
MATRIX	MONITORING WELL	MONITORING WELL	MONITORING WELL	MONITORING WELL
NUMBER OF CONTAINERS: (TYPE & VOLUME REQUIRED)	2 (40 mL) glass vials per field sample	4 (1 Liter) amber glass bottles per field sample	1 (Liter) polyethylene bottle per field sample	1 (Liter) polyethylene bottle per field sample
PRESERVATIVE	HCL: pH<2 & ICE	ICE	HNO ₃ :pH <2	NaOH: pH >12
HOLDING TIME	14 DAYS	7 DAYS	6 MONTHS	14 DAYS
TOTAL OF SAMPLES	2	2	2	2
DUPLICATES	1	1	1	1
BACKGROUND SAMPLES	1	1	1	1
TRIP BLANKS	1 (2-40 mL vials per VOC cooler)	None	None	None
MS/MSD	1 Triple Volume	1 Double Volume	1 Double Volume	1 Double Volume
TOTAL # OF FIELD SAMPLES:	4	4	4	4
Total number of sample containers:	14	20	5	5

FIELD SAMPLING SUMMARY

	VOC'S	BNA, Pest/PCB	METALS	CYANIDE
MATRIX	Surface Water	Surface Water	Surface Water	Surface Water
NUMBER OF CONTAINERS: (TYPE & VOLUME REQUIRED)	2 (40 mL) glass vials per field sample	4 (1 Liter) amber glass bottles per field sample	1 (Liter) polyethylene bottle per field sample	1 (Liter) polyethylene bottle per field sample
PRESERVATIVE	HCL: pH<2 & ICE	ICE	HNO ₃ :pH <2	NaOH: pH >12
HOLDING TIME	14 DAYS	7 DAYS	6 MONTHS	14 DAYS
TOTAL OF SAMPLES	3	3	3	3
DUPLICATES	1	1	1	1
BACKGROUND SAMPLES	1	1	1	1
TRIP BLANKS	1 (2-40 mL vials per VOC cooler)	None	None	None
MS/MSD	1 Triple Volume	1 Double Volume	1 Double Volume	1 Double Volume
TOTAL # OF FIELD SAMPLES:	5	5	5	5
Total number of sample containers:	16	24	6	6

Navistar International Body Plant
Clark County
Site Locator Map

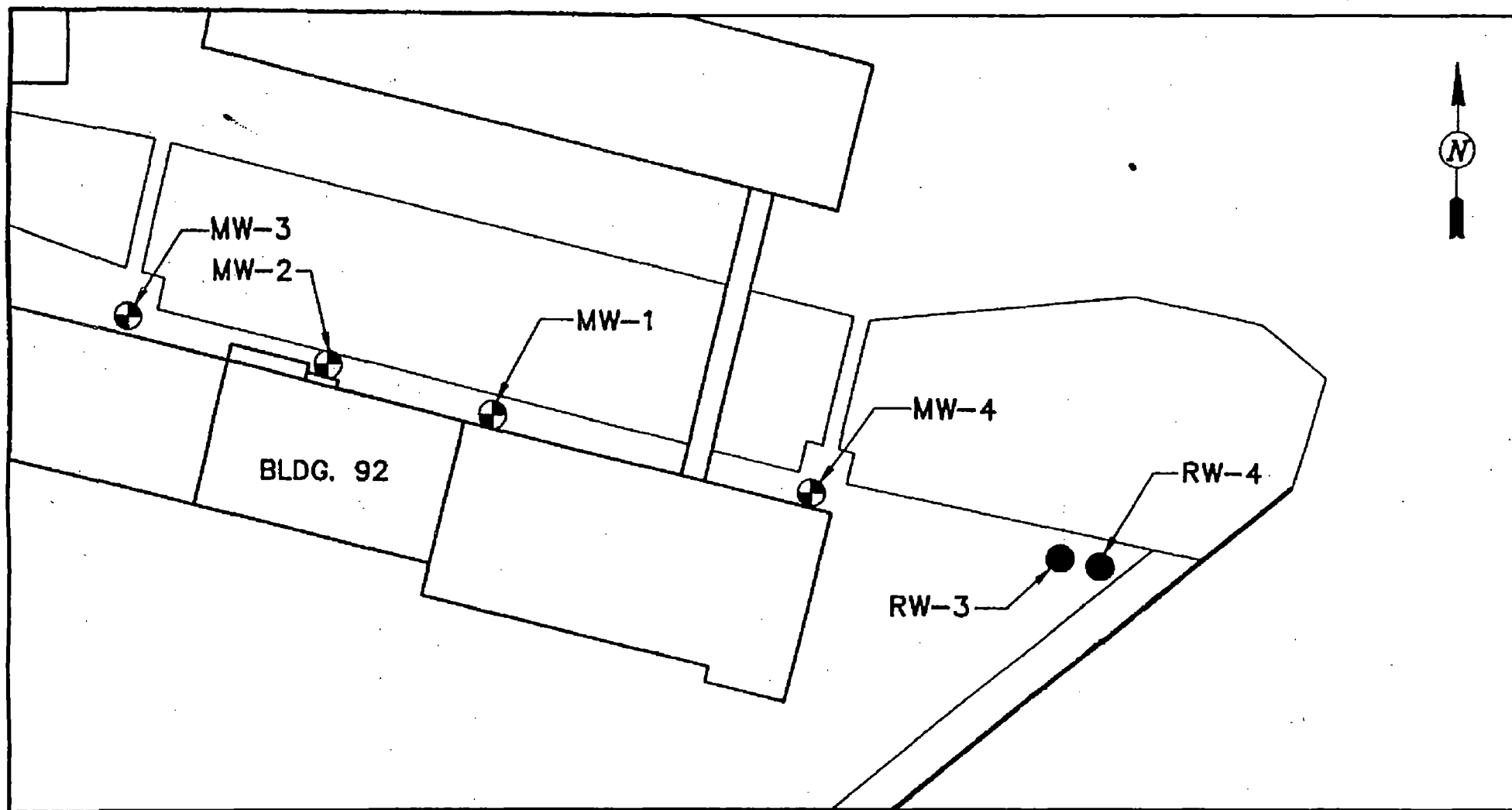
Figure 1



SPRINGFIELD QUADRANGLE
Ohio-Clark County

39083-H7-TF-024

1966
Photorevised 1981



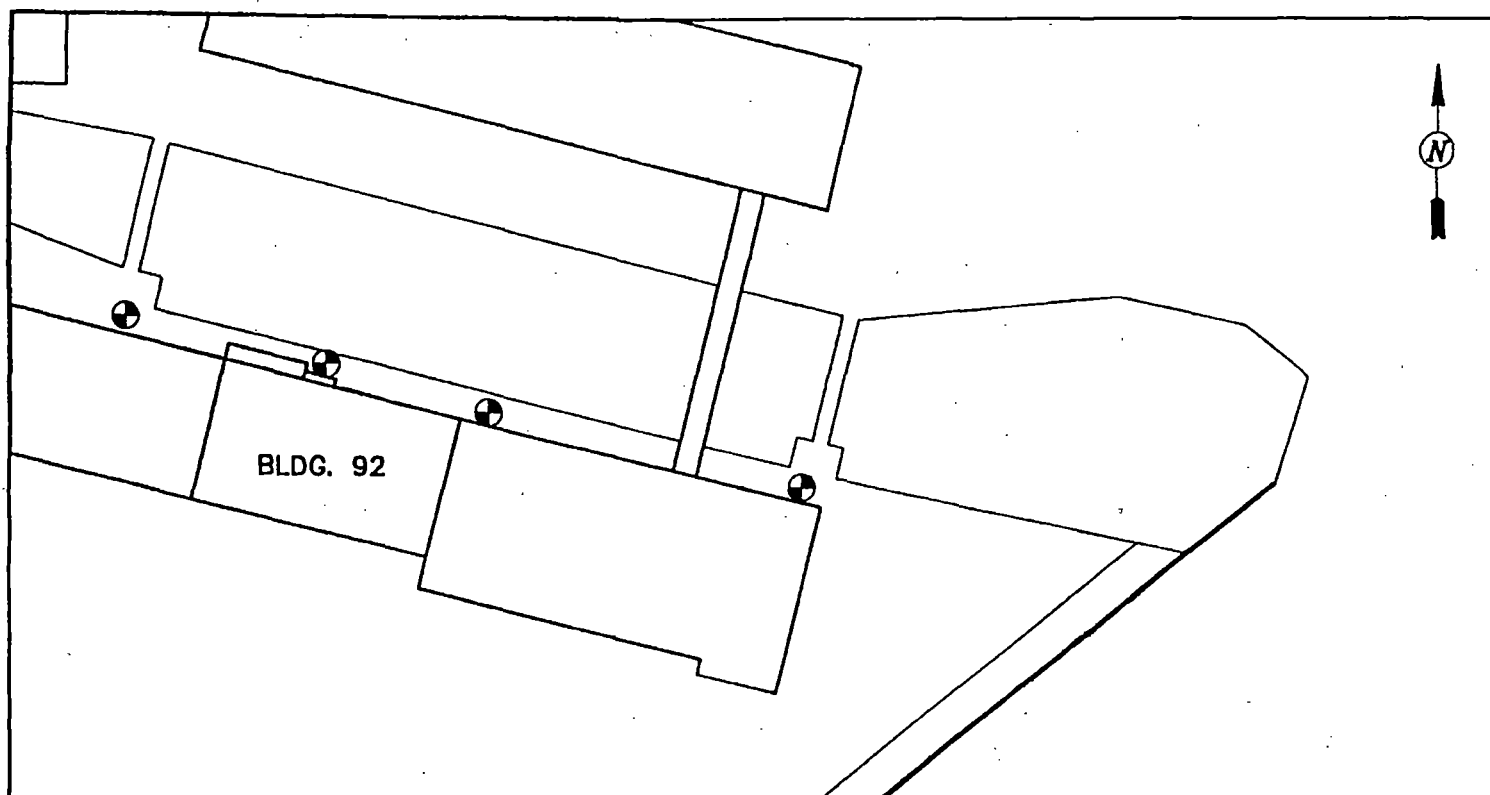
LEGEND

- ⊕ MONITORING WELL
- RECOVERY WELL

Figure 2

MONITORING AND RECOVERY WELL LOCATIONS

NAVISTAR BODY PLANT
SPRINGFIELD, OHIO



LEGEND

⊕ MONITORING WELL

Figure 3

MONITORING WELL
SAMPLING LOCATIONS

NAVISTAR BODY PLANT
SPRINGFIELD, OHIO

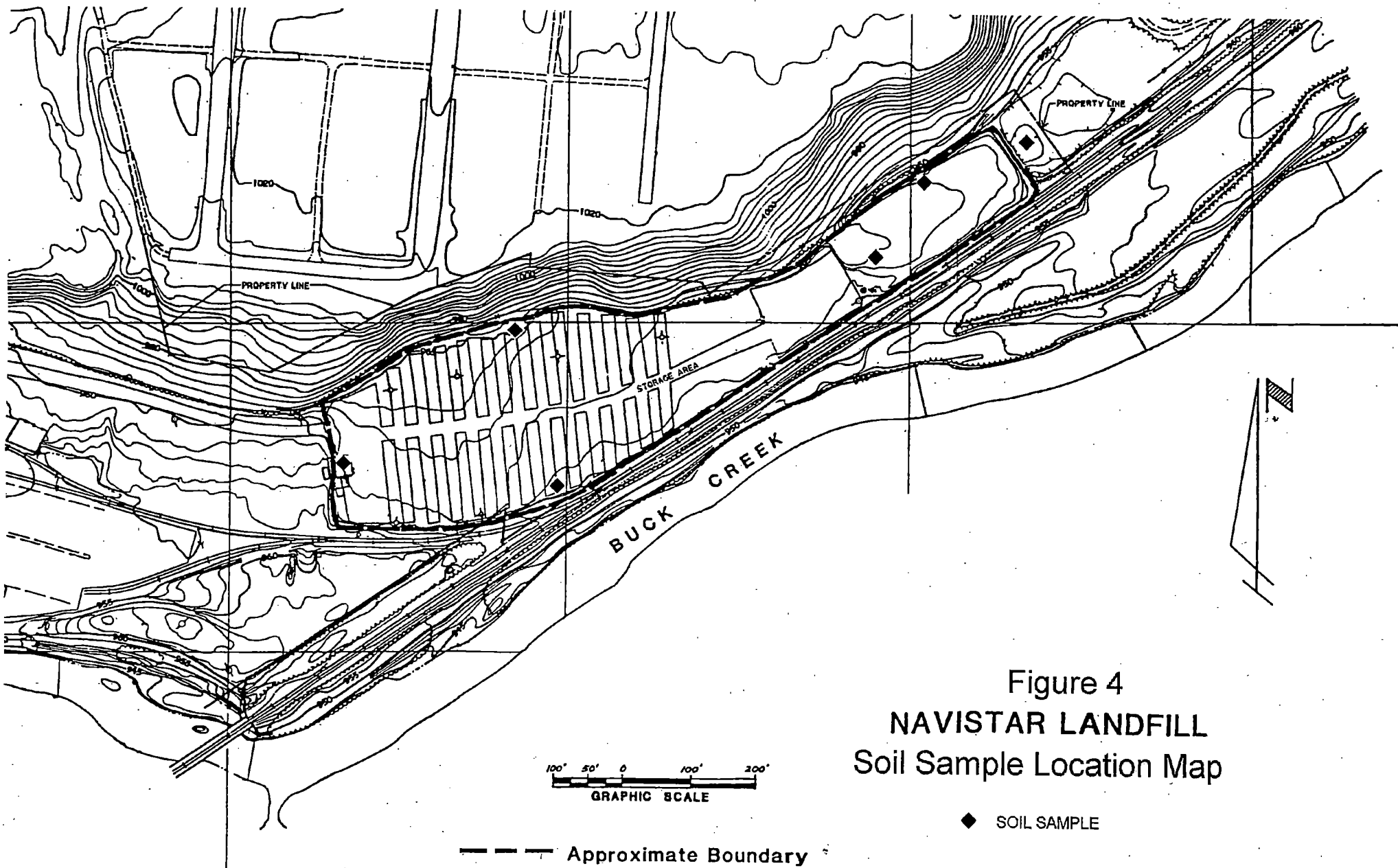


Figure 4
NAVISTAR LANDFILL
Soil Sample Location Map

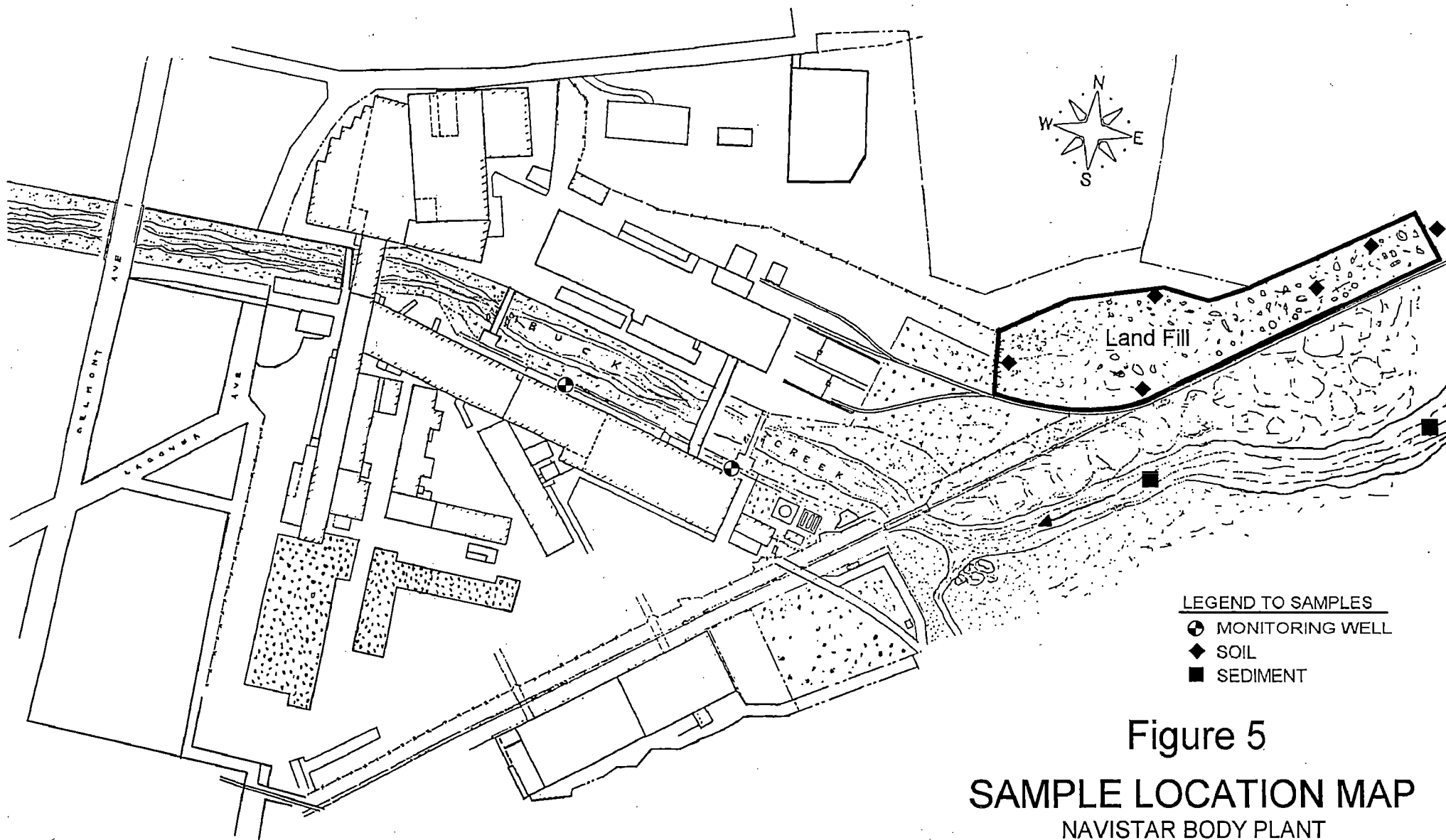


Figure 5
SAMPLE LOCATION MAP
NAVISTAR BODY PLANT
SPRINGFIELD, OHIO

References

Follow-up Ground Water Treatment System, QSource Engineering, Inc.
July 12, 1989.

Remedial Investigation/ Feasibility Study Work Plan for Navistar International by
QSource Engineering, June 1989.

1. Site Name: Navistar Transportation Corp., Body Plant, Lagonda Ave.
(as entered in CERCLIS)
2. Site CERCLIS Number: OHD081290660
3. Site Reviewer: JASON THOMAS
4. Date: 12/19/94
5. Site Location: SPRINGFIELD/CLARK COUNTY, OHIO
(City/County, State)
6. Congressional District: 7
7. Site Coordinates: Single

Latitude: 39°56'16.0"

Longitude: 83°46'28.0"

	Score
Ground Water Migration Pathway Score (Sgw)	4.32
Surface Water Migration Pathway Score (Ssw)	97.13
Soil Exposure Pathway Score (Ss)	1.81
Air Migration Pathway Score (Sa)	3.57

Site Score	48.65
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NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: LANDFILL

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		LANDFILL	
b. Source Type		Landfill	
c. Secondary Source Type		N.A.	
d. Source Vol. (yd3/gal)	Source Area (ft2)	69990.00	105000.00
e. Source Volume/Area Value		2.80E+01	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		2.80E+01	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Benzene	< 2	YES	1.9E-02	ppm
Cadmium	< 2	NO	4.5E-03	ppm
Chromium	< 2	NO	2.4E+00	ppm
Ethyl benzene	< 2	YES	1.8E+00	ppm
Lead	< 2	NO	1.8E+01	ppm
Methyl ethyl ketone	< 2	YES	0.0E+00	ppm
Methyl isobutyl ketone	< 2	YES	0.0E+00	ppm
Methylene chloride	< 2	YES	2.5E-02	ppm
PCBs	< 2	YES	0.0E+00	ppm
Toluene	< 2	YES	3.8E-01	ppm
Xylene, m-	< 2	YES	0.0E+00	ppm

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: UNDER GROUND TANKS

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		UNDER GROUND TANKS	
b. Source Type		Drums	
c. Secondary Source Type		N.A.	
d. Source Vol. (yd3/gal)	Source Area (ft2)	32000.00	0.00
e. Source Volume/Area Value		6.40E+01	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		6.40E+01	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Cumene	> 2	YES	7.7E+00	ppm
Ethyl benzene	> 2	YES	2.1E-01	ppm
Lead	> 2	NO	4.3E+02	ppm
Methyl Napthalene, 2-	> 2	YES	7.5E-01	ppm
Napthalene	> 2	YES	2.9E+00	ppm
Tetrahydrofuran	> 2	YES	0.0E+00	ppm
Toluene	> 2	YES	6.3E-01	ppm
Xylene, m-	> 2	YES	3.1E-01	ppm
Xylene, o-	> 2	YES	3.1E-01	ppm
Xylene, p-	> 2	YES	3.1E-01	ppm

Documentation for Source Type:

There were a total of (8) eight tanks that were removed.
 Four of the tanks were removed from the site were above ground.
 Four of the tanks were removed from the site were underground.

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

Reference: 2

Documentation for Source Hazardous Substances:

The list of sample contaminants are from the different samples taken when the tanks were removed. These are the highest sample results from each the samples taken from all the above and below ground tanks removed.

Reference: 2

Documentation for Source Volume:

This number is the total capacity of the four USTs.

They are: 6,000 Gal. Regular gasoline UST

10,000 Gal. #2 Fuel Oil

(2) @ 8,000 Gal. Enamel Paint

For a total of 32,000 Gal.

Reference: 2

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	LANDFILL	GW-SW-SE-A	2.80E+01	0.00E+00	2.80E+01
2	UNDER GROUND TANKS	GW-SW	6.40E+01	0.00E+00	6.40E+01

WASTE QUANTITY

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values	HWQVs*	WCVs**
Ground Water	Toxicity/Mobility 1.00E+04	10	18
SW: Overland Flow, DW	Tox./Persistence 1.00E+04	100	32
SW: Overland Flow, HFC	Tox./Persis./Bioacc. 5.00E+08	100	320
SW: Overland Flow, Env	Etox./Persis./Bioacc. 5.00E+08	100	320
SW: GW to SW, DW	Tox./Persistence 1.00E+04	10	18
SW: GW to SW, HFC	Tox./Persis./Bioacc. 5.00E+08	10	180
SW: GW to SW, Env	Etox./Persis./Bioacc. 5.00E+08	10	180
Soil Exposure: Resident	Toxicity 1.00E+04	10	18
Soil Exposure: Nearby	Toxicity 1.00E+04	10	18
Air	Toxicity/Mobility 2.00E+02	10	6

* Hazardous Waste Quantity Factor Values

** Waste Characteristics Factor Category Values

Note: SW = Surface Water
 GW = Ground Water
 DW = Drinking Water Threat
 HFC = Human Food Chain Threat
 Env = Environmental Threat

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: GRT MIAMI VALLEY AQU		
1. Observed Release	550	550
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	3
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	440
3. Likelihood of Release	550	550
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+04
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	18
Targets		
7. Nearest Well	50	1.80E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	1.30E+01
8d. Population (lines 8a+8b+8c)	**	1.30E+01
9. Resources	5	5.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	3.60E+01
12. Targets (including overlaying aquifers)	**	3.60E+01
13. Aquifer Score	100	4.32
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	4.32

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	550
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	0
2c. Distance to Surface Water	25	25
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	250
3. Potential to Release by Flood		
3a. Containment (Flood)	10	10
3b. Flood Frequency	50	7
3c. Potential to Release by Flood (lines 3a x 3b)	500	70
4. Potential to Release (lines 2d+3c)	500	320
5. Likelihood of Release	550	550
Waste Characteristics		
6. Toxicity/Persistence	*	1.00E+04
7. Hazardous Waste Quantity	*	100
8. Waste Characteristics	100	32
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	5.00E+00
12. Targets (lines 9+10d+11)	**	5.00E+00
13. DRINKING WATER THREAT SCORE	100	1.07

* Maximum value applies to waste characteristics category.
 ** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	550
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	5.00E+08
16. Hazardous Waste Quantity	*	100
17. Waste Characteristics	1000	320
Targets		
18. Food Chain Individual	50	4.50E+01
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	3.00E-02
19c. Pot. Human Food Chain Contamination	**	0.00E+00
19d. Population (lines 19a+19b+19c)	**	3.00E-02
20. Targets (lines 18+19d)	**	4.50E+01
21. HUMAN FOOD CHAIN THREAT SCORE	100	96.06

* Maximum value applies to waste characteristics category.
 ** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	550
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	5.00E+08
24. Hazardous Waste Quantity	*	100
25. Waste Characteristics	1000	320
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	0.00E+00
26d. Sensitive Environments (lines 26a+26b+26c)	**	0.00E+00
27. Targets (line 26d)	**	0.00E+00
28. ENVIRONMENTAL THREAT SCORE	60	0.00
29. WATERSHED SCORE	100	97.13
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	97.13

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release to Aquifer Aquifer: GRT MIAMI VALLEY AQU		
1. Observed Release	550	550
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	3
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	440
3. Likelihood of Release	550	550
Waste Characteristics		
4. Toxicity/Mobility/Persistence	*	1.00E+04
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	18
Targets		
7. Nearest Intake	50	0.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	0.00E+00
8d. Population (lines 8a+8b+8c)	**	0.00E+00
9. Resources	5	5.00E+00
10. Targets (lines 7+8d+9)	**	5.00E+00
11. DRINKING WATER THREAT SCORE	100	0.60

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
12. Likelihood of Release (same as line 3)	550	550
Waste Characteristics		
13. Toxicity/Mobility/Persistence/Bioacc.	*	5.00E+08
14. Hazardous Waste Quantity	*	10
15. Waste Characteristics	1000	180
Targets		
16. Food Chain Individual	50	0.00E+00
17. Population		
17a. Level I Concentrations	**	0.00E+00
17b. Level II Concentrations	**	0.00E+00
17c. Pot. Human Food Chain Contamination	**	0.00E+00
17d. Population (lines 17a+17b+17c)	**	0.00E+00
18. Targets (lines 16+17d)	**	0.00E+00
19. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
20. Likelihood of Release (same as line 3)	550	550
Waste Characteristics		
21. Ecosystem Tox./Mobility/Persist./Bioacc.	*	5.00E+08
22. Hazardous Waste Quantity	*	10
23. Waste Characteristics	1000	180
Targets		
24. Sensitive Environments		
24a. Level I Concentrations	**	0.00E+00
24b. Level II Concentrations	**	0.00E+00
24c. Potential Contamination	**	0.00E+00
24d. Sensitive Environments	**	0.00E+00
(lines 24a+24b+24c)		
25. Targets (line 24d)	**	0.00E+00
26. ENVIRONMENTAL THREAT SCORE	60	0.00
27. WATERSHED SCORE	100	0.60
28. SW: GW to SW COMPONENT SCORE (Sgs)	100	0.60

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SOIL EXPOSURE PATHWAY SCORESHEET

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	10
4. Waste Characteristics	100	18
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	1.50E+01
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	1.50E+01
11. RESIDENT POPULATION THREAT SCORE	**	1.48E+05

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

*** No specific maximum value applies, see HRS for details.

SOIL EXPOSURE PATHWAY SCORESHEET

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	1.00E+01
13. Area of Contamination	100	2.00E+01
14. Likelihood of Exposure	500	5.00E+00
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	100	18
Targets		
18. Nearby Individual	1	1.00E+00
19. Population Within 1 Mile	**	6.00E+00
20. Targets (lines 18+19)	**	7.00E+00
21. NEARBY POPULATION THREAT SCORE	**	6.30E+02
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	1.81

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

AIR PATHWAY SCORESHEET

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	84
2b. Particulate Potential to Release	500	84
2c. Potential to Release	500	84
3. Likelihood of Release	550	84
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+02
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	6
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	5.65E+02
8d. Population (lines 8a+8b+8c)	**	5.65E+02
9. Resources	5	0.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	0.00E+00
10c. Sens. Environments(lines 10a+10b)	***	0.00E+00
11. Targets (lines 7+8d+9+10c)	**	5.85E+02
AIR MIGRATION PATHWAY SCORE (Sa)	100	3.57E+00

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

*** No specific maximum value applies, see HRS for details.

Record Information

1. Site Name: Navistar Transportation Corp., Body Plant, Lagonda Ave.
(as entered in CERCLIS)
2. Site CERCLIS Number: OHD081290660
3. Site Reviewer: JASON THOMAS
4. Date: 12/19/94
5. Site Location: SPRINGFIELD/CLARK COUNTY, OHIO
(City/County, State)
6. Congressional District: 7
7. Site Coordinates: Single
Latitude: 39°56'16.0" Longitude: 83°46'28.0"

Site Description

1. Setting: Urban
2. Current Owner: Private - Industrial
3. Current Site Status: Active
4. Years of Operation: Active Site , from and to dates: 1850 TO PRESENT
5. How Initially Identified: Incidental
6. Entity Responsible for Waste Generation:
 - Manufacturing
 - Metal Forging and Stamping
 - Fabr. Struc. Metal Prod.
7. Site Activities/Waste Deposition:
 - Industrial Landfill
 - Tanks - Below Ground

Waste Description

8. Wastes Deposited or Detected Onsite:

- Organic Chemicals
- Inorganic Chemicals
- Solvents
- Paints/Pigments
- Metals
- Fly and Bottom Ash
- Lead
- PCBs

Response Actions

9. Response/Removal Actions:

- Site Access Has Been Restricted
- Other Removal Action Has Occurred

RCRA Information

10. For All Active Facilities, RCRA Site Status:

- Not Applicable

Demographic Information

11. Workers Present Onsite: Yes

12. Distance to Nearest Non-Worker Individual: > 10 Feet - 1/4 Mile

13. Residential Population Within 1 Mile: 8441.0

14. Residential Population Within 4 Miles: 83420.0

Water Use Information

15. Local Drinking Water Supply Source:

- Ground Water (within 4 mile distance limit)

16. Total Population Served by Local Drinking Water Supply Source: Unknown

17. Drinking Water Supply System Type for Local Drinking
Water Supply Sources:

- Municipal (Services over 25 People)
- Private

18. Surface Water Adjacent to/Draining Site:

- Stream

REFERENCES

Navistar Transportation Corp., Body Plant, Lagonda Ave. - 12/19/94

1. RI/FS June 1989: Work plan for landfill, QSource
2. Follow-up GW Treatment; Navistar Body Plant, July 12, 1989. QSource
3. Phase I Report; Preliminary Investigation/Environmental Assessment May '86: QSource.

Ohio EPA SITE SAFETY PLAN

Site: Navistar International U.S.EPA ID Number: OHD081290660
Body Plant Ohio ID Number: 512-1462

Address: 2069 Lagonda Avenue Springfield, Ohio.

Prepared By: Victoria Van Horn **Date:** January 30, 1995

Reviewed By: Jeff Wander **Date:** February 6, 1995

Date(s) of Investigation: Week of March 13, 1995

Site Objectives: The purpose of this IA is to collect all data necessary to prepare an HRS scoring package to sufficiently evaluate if the Navistar International Body Plant site belongs on the National Priority List (NPL). Data collected will be used to document observed releases, observed contamination and levels of target exposure to contamination.

Team Member:
SIFU

SWDO

Responsibilities:
Sampling, Health & Safety,
Sample Control,
Decontamination
Sampling & Scheduling

Media of Possible Exposure:

Air	Soil	GW
SW	Sed	Other:

Overall Site Risk/Hazard:

Serious	Moderate
Low	Unknown

SITE DESCRIPTION

The Navistar Body Plant is located at 2039 Lagonda Ave. in Springfield, Ohio. Approximately 40 miles west of Columbus and 25 miles northeast of Dayton. The plant is on the northeast side of Springfield next to Buck Creek, where it is a major drainage that flows east-west through Springfield.

The abandon landfill is located in the northeast corner of the Navistar Plant.

SITE HISTORY

A more indepth site history is located in the IA Workplan

Map/sketch Attached? Yes

Level of Protection: A B C D

Description of Personal Protective Equipment to be worn:

"Modified" Level C, tyvek and boot covers will be worn by Ohio EPA personnel while on site unless microtip readings within the breathing zone indicate 1-10 units above background. In this case personnel will upgrade to Level C (with respirator).

Note: No smoking, food, or gum will be permitted on-site.

Note: Minimum of steel-toed boots must be worn on-site.

Field Equipment/Action Levels: Ohio EPA FSOP: 1.01 Enter site where contamination is unknown in Level B monitoring with a PID and O₂ meter. If levels are 1-10 units above background in the breathing zone, downgrade to Level C with respirator. If microtip levels are below 1 unit in the breathing zone, Modified Level C (tyvek) is sufficient. Sampling drums will always be performed in Level B.

Directions to Site/Site Entry/Access: Interstate I-70 west to State Route 68 North to Urbana. Get-off at the Springfield exit, Route 4. Follow Route 4 east until it runs into the Lagonda Avenue. Turn left on to Lagonda Avenue. Follow the road until it runs into the facility.

Personal Decontamination Procedures: All personnel should wear appropriate personal protective disposable clothing as defined by Modified Level C. Wash exposed skin with soap and water before leaving site.

Equipment Decontamination Procedures: Ohio EPA FSOP: 10.01 Alconox soap and tap water wash, tap water rinse, ASTM Type II water rinse, methanol rinse, hexane rinse.

Is 911 Emergency Information Available: Yes No

Police: 911

Fire Department: 911

Hospital Emergency Room:

Mercy Medical Center
1343 Fountain Square Boulevard
Springfield, Ohio 45501-1380
513-390-5068
(FIGURE 1)

Poison Control Center: 1-800-426-2348

Location of Nearest Telephone: Field Vehicles are equipped with cellular telephones.

Location of First Aid Kits: Trucks and Trailers

Source of Potable Water: Water cooler on-site

Ambulance: 911

Springfield

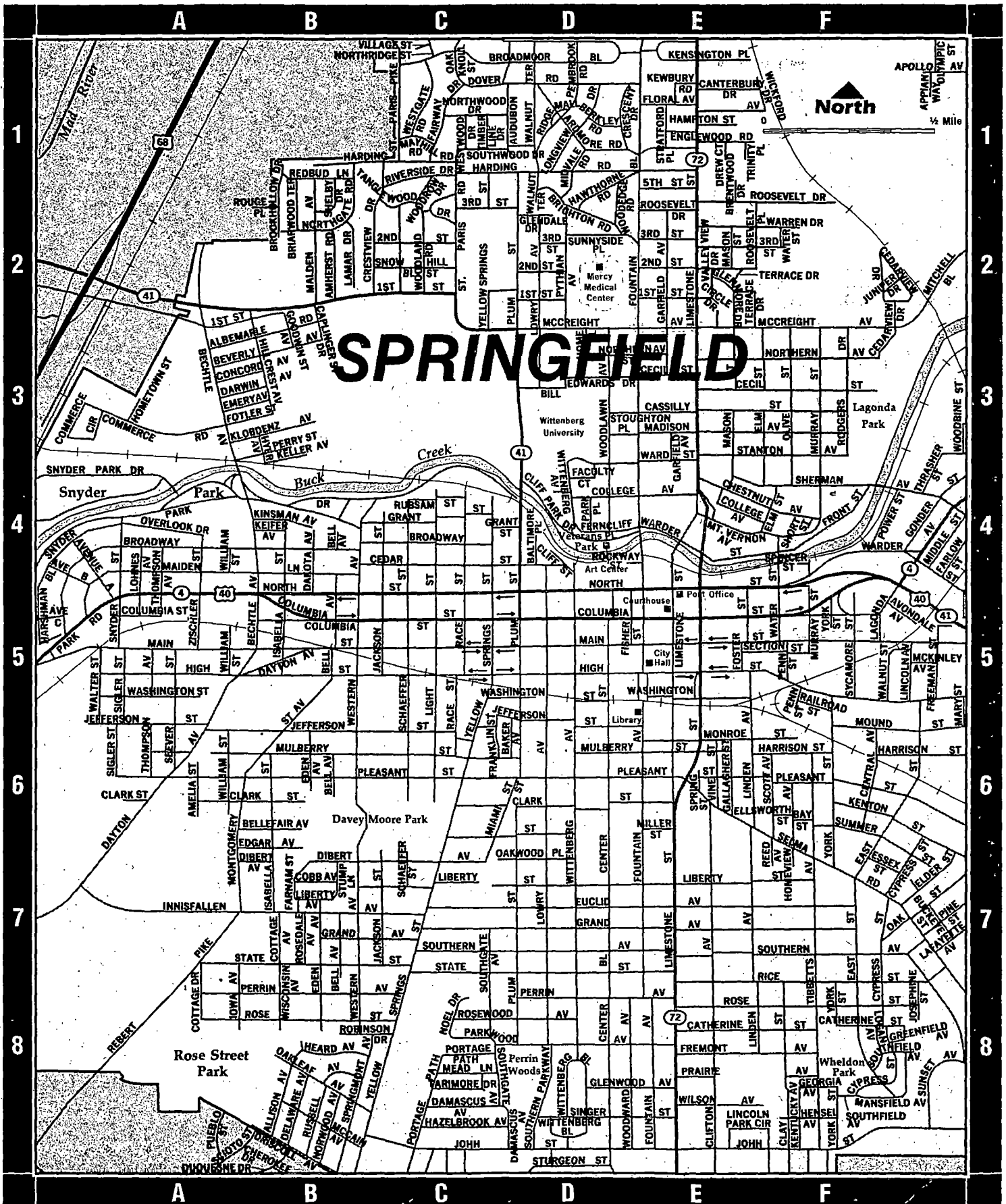


Figure 1: Directions to Mercy Medical Center

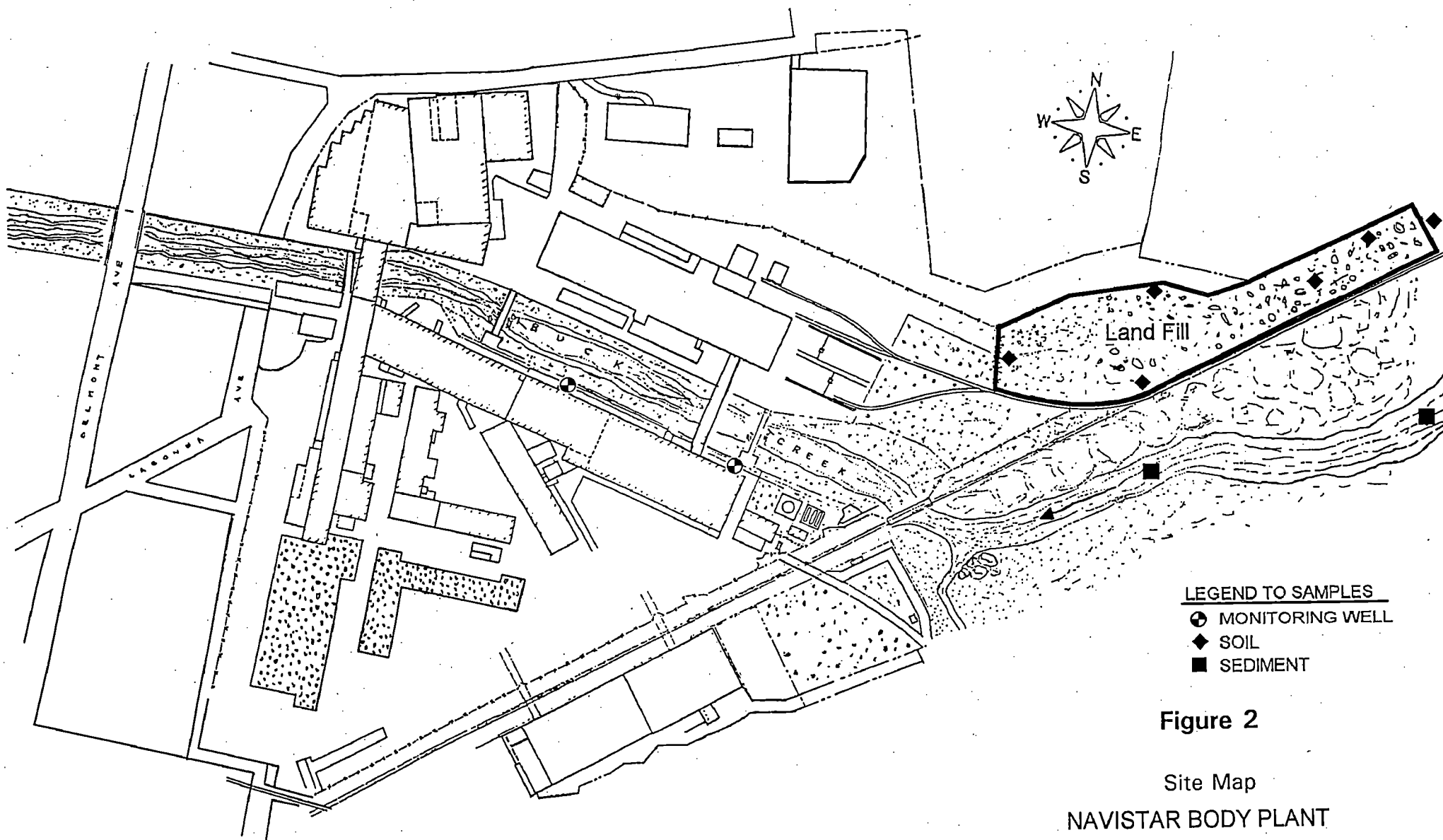


Figure 2

Site Map
NAVISTAR BODY PLANT
SPRINGFIELD, OHIO

Table 1 - Task Analysis**List of potential physical hazards**

Include such items as: heavy traffic areas, overhead construction areas, work around excavation, work inside plant production area, etc...

Task	Hazard	Description/Location	Procedure used to Monitor/Reduce Hazard
Sampling	Inhalation	Soil Sampling or Monitoring Well Sampling	PID; respirator

Table 2 - Task Analysis (cont.)

List of Known Contaminants (Complete items with asterisk):

Task*	Contaminant*	TWA/TLV/STEL IDLH*	Source/ Quantity*	Route of Exposure*	Symptoms of Acute Exposure	Instruments Used to Monitor Contaminant
Sampling	Lead	OSHA TWA: 0.050mg/m ³ IDLH: 700 mg / m ³	Soil , sediment	Inhalation, Ingestion, Abs, Contact	Anemia, hypotension, weak, lass, insom, constip, abdom pain, pal eye, gingival lead line	None
Sampling	Toluene	TWA: 100 ppm IDLH: 2000 ppm	Shallow groundwater Surface water (possible), sediment	Inh, Abs, Ing, Con	Ftg, weak; conf, euph, dizz, head; dilated pupils, lac; ner, mus fig, insom; pares; derm	Microtip
Sampling	1,1,2,2- Tetrachloroethane	TWA: 1 ppm [7 mg/m ³ skin] IDLH: 150 ppm	Shallow groundwater Surface water (possible), sediment	Inh, Abs, Ing, Con	Nau, vomit, abdom pain; tremor fingers, jaun, enlarged tend liver; derm; monocy; kidney damage	Microtip
Sampling	Tetrachloroethylene i.e. Perchloroethylene, Perk	OSHA TWA: 25 ppm IDLH: 500 ppm [CAR]	Shallow groundwater Surface water (possible), sediment	Inh, Abs, Ing, Con	Irrit eyes, nose, throat; nau; flush face, neck; verti, dizz, inco; head,som; skineryt; liver damage; [CAR]	Microtip
Sampling	Benzene	OSHA TWA: 1 ppm [CAR]	Shallow groundwater Surface water (possible), sediment	Inh, Abs, Ing, Con	Irrit eyes, nose, resp sys; gidd; head, nau, staggered gait; fig, ancor, lass; derm; bone marrow depres; [CAR]	Microtip
Sampling	1,,2-Dichloroehtylene	TWA: 200 ppm IDLH: 4000 ppm	Shallow groundwater Surface water (possible), sediment	Inh, Ing, Con	Irrit eyes, resp sys; CNS depres	Microtip

Table 3
Specific Levels of Protection for Tasks

<u>TASK</u>	<u>LEVEL OF PROTECTION</u>
Site Entry	LEVEL D: Recon indicated no chemical hazard
Sampling	LEVEL D: If air monitoring with Microip in breathing space indicates 1-10 units above background, upgrade to Level C. If greater than 10 units above background upgrade to Level B. If greater than 100 units above background evacuate.